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NEWS 14 DEC 02 Derwent World Patent Index: Japanese FI-TERM  
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NEWS 15 DEC 02 PCTGEN enhanced with patent family and legal status  
display data from INPADOCDB  
NEWS 16 DEC 02 USGENE: Enhanced coverage of bibliographic and  
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NEWS 17 DEC 21 New Indicator Identifies Multiple Basic Patent  
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FILE COVERS 1907 - 12 Jan 2010 VOL 152 ISS 3

FILE LAST UPDATED: 11 Jan 2010 (20100111/ED)

REVISED CLASS FIELDS (/NCL) LAST RELOADED: Oct 2009

USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Oct 2009

Caplus now includes complete International Patent Classification (IPC) reclassification data for the third quarter of 2009.

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This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s US 20060228607/pn

L1 1 US 20060228607/PN  
(US20060228607/PN)

=> d l1 all

L1 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2010 ACS on STN

AN 2004:534488 CAPLUS

DN 141:74309

ED Entered STN: 02 Jul 2004

TI Membrane-electrode assembly for fuel cell

IN Zaopo, Antonio; Lopes, Correia Tavares Ana Berta; Dubitsky, Yuri A.

PA Pirelli & C. S.P.A., Italy

SO PCT Int. Appl., 24 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM H01M008-00

CC 52-2 (Electrochemical, Radiational, and Thermal Energy Technology)  
 Section cross-reference(s): 38

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004055927	A2	20040701	WO 2002-EP14246	20021213
	WO 2004055927	A3	20060119		
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	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
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	AU 2002356654	A1	20040709	AU 2002-356654	20021213
	AU 2002356654	B2	20090820		
	EP 1576683	A2	20050921	EP 2002-808237	20021213
	EP 1576683	B1	20060607		
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	AT 329374	T	20060615	AT 2002-808237	20021213
	JP 2006520992	T	20060914	JP 2004-559642	20021213
	ES 2266642	T3	20070301	ES 2002-808237	20021213
	US 20060228607	A1	20061012	US 2006-538352	20060414 <--
PRAI	EP 2002-808237	A	20021213		
	WO 2002-EP14246	W	20021213		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2004055927	ICM	H01M008-00
	IPCI	H01M0008-00 [ICM,7]; H01M0008-10 [ICS,7]
	IPCR	H01M0004-90 [N,C*]; H01M0004-92 [N,A]; H01M0008-00 [I,C*]; H01M0008-00 [I,A]; H01M0008-10 [I,C*]; H01M0008-10 [I,A]
CA 2508835	ECLA	H01M008/10E2; T01M; T01M
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	IPCR	H01M0004-90 [N,C*]; H01M0004-92 [N,A]; H01M0008-00 [I,C*]; H01M0008-00 [I,A]; H01M0008-10 [I,C*]; H01M0008-10 [I,A]
AU 2002356654	ECLA	H01M008/10E2; T01M; T01M
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EP 1576683	ECLA	H01M008/10E2; T01M; T01M
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AT 329374	ECLA	H01M008/10E2; T01M; T01M
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JP 2006520992	ECLA	H01M008/10E2; T01M; T01M
	IPCI	H01M0008-02 [I,A]; H01M0008-10 [I,A]

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                        [N,C*]; H01M0004-92 [N,A]; H01M0008-00 [I,C*];
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                        H01M0008-10 [I,A]
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                        [N,C*]; H01M0004-92 [N,A]; H01M0008-00 [I,C*];
                        H01M0008-00 [I,A]
                NCL      429/033.000
                ECLA    E21B003/02; H02K001/16; H02K001/18B; H02K001/30;
                        H02K005/04; H02K007/102; H02K007/14; H02K009/04; T02K;
                        T02K; T02K

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ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

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AB    Fuel cell comprising a membrane-electrode assembly includes an anode, a
      cathode, and a polymer electrolyte membrane interposed between the anode
      and the cathode, wherein the polymer electrolyte membrane comprises a
      sulfonated polysulfone polymer.
ST    membrane electrode assembly fuel cell; a sulfonated polysulfone polymer
      electrolyte fuel cell
IT    Ion exchange
      (capacity; membrane-electrode assembly for fuel cell)
IT    Fuel cell electrodes
      Fuel cell electrolytes
      Glass transition temperature
      (membrane-electrode assembly for fuel cell)
IT    Polysulfones, uses
      RL: DEV (Device component use); USES (Uses)
      (polyether-, sulfonated; membrane-electrode assembly for fuel cell)
IT    Fuel cells
      (polymer electrolyte; membrane-electrode assembly for fuel cell)
IT    Polyethers, uses
      RL: DEV (Device component use); USES (Uses)
      (polysulfone-, sulfonated; membrane-electrode assembly for fuel cell)
IT    Electric apparatus
      (portable; membrane-electrode assembly for fuel cell)
IT    Fuel cells
      (power plants; membrane-electrode assembly for fuel cell)
IT    Polysulfones, uses
      RL: DEV (Device component use); USES (Uses)
      (sulfonated; membrane-electrode assembly for fuel cell)
IT    Engines
      (vehicle transportation; membrane-electrode assembly for fuel cell)
IT    25135-51-7D, sulfonated and alkyl substituted derivs. 40883-78-1D,
      sulfonated and alkyl substituted derivs.
      RL: DEV (Device component use); USES (Uses)
      (membrane-electrode assembly for fuel cell)

```

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE CITED REFERENCES

- (1) Anon; US 5198525 A
- (2) Anon; US 6232025 B1 CAPLUS

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=> S 40883-78-1/RN

L2 1 40883-78-1/RN

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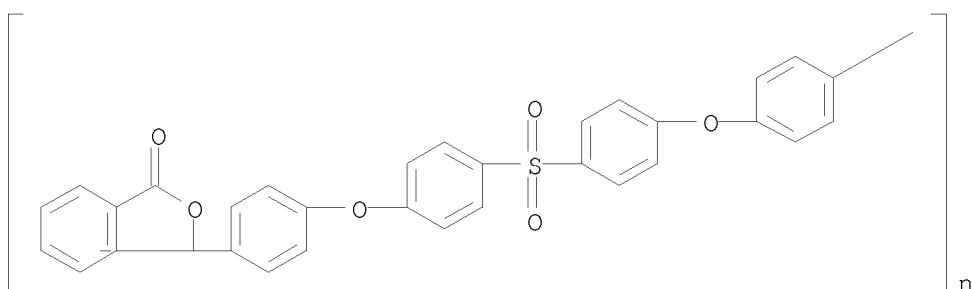
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L2 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2010 ACS on STN  
 RN 40883-78-1 REGISTRY  
 CN Poly[(3-oxo-1(3H)-isobenzofuranylidene)-1,4-phenyleneoxy-1,4-  
 phenylenesulfonyl-1,4-phenyleneoxy-1,4-phenylene] (CA INDEX NAME)  
 OTHER NAMES:  
 CN 4,4'-Dichlorodiphenylsulfone-phenolphthalein copolymer, SRU  
 CN 4,4'-Difluorodiphenyl sulfone-phenolphthalein copolymer, SRU  
 CN Bis(4-fluorophenyl) sulfone-phenolphthalein sodium salt polymer, SRU  
 CN Bis(p-chlorophenyl) sulfone-phenolphthalein polymer, SRU  
 CN Bis(p-fluorophenyl) sulfone-phenolphthalein polymer, SRU  
 CN PES-C  
 CN Phenolphthalein-4,4'-sulfonylbis(chlorobenzene) copolymer, SRU  
 CN Poly(phthalidylidene-1,4-phenyleneoxy-1,4-phenylenesulfonyl-1,4-  
 phenyleneoxy-1,4-phenylene)  
 DR 152987-44-5, 91263-05-7, 685088-63-5  
 MF (C32 H20 O6 S)n

CI PMS  
 PCT Polyether, Polysulfone  
 LC STN Files: AGRICOLA, CA, CAPLUS, TOXCENTER, USPAT2, USPATFULL  
 DT.CA CAplus document type: Conference; Journal; Patent  
 RL.P Roles from patents: PREP (Preparation); PRP (Properties); USES (Uses)  
 RLD.P Roles for non-specific derivatives from patents: PREP (Preparation);  
 PRP (Properties); USES (Uses)  
 RL.NP Roles from non-patents: BIOL (Biological study); PREP (Preparation);  
 PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES  
 (Uses)  
 RLD.NP Roles for non-specific derivatives from non-patents: PREP  
 (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or  
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 186 REFERENCES IN FILE CAPLUS (1907 TO DATE)

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=> S 25135-51-7/RN

L3 1 25135-51-7/RN

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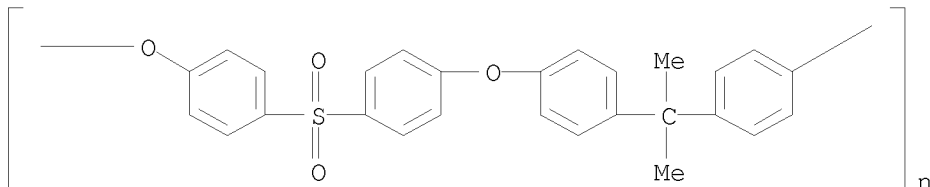
L3 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2010 ACS on STN  
RN 25135-51-7 REGISTRY  
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OTHER CA INDEX NAMES:  
CN Poly(oxy-p-phenylenesulfonyl-p-phenyleneoxy-p-phenyleneisopropylidene-p-  
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OTHER NAMES:  
CN 4,4'-Bisfluorophenyl sulfone-bisphenol A copolymer, SRU  
CN 4,4'-Dichlorodiphenyl sulfone-diphenylolpropane disodium salt copolymer,  
sru  
CN 4,4'-Dichlorodiphenyl sulfone-diphenylolpropane polymer, SRU  
CN 4,4'-Dichlorodiphenylsulfone-diphenylolpropane copolymer, sru  
CN Amicon Diaflo PM 30  
CN Amicon PM 30  
CN Amoco P 3500  
CN B 10  
CN B 10 (polyethersulfone)  
CN Bis(4-chlorophenyl) sulfone-2,2-bis(4-hydroxyphenyl)propane copolymer, SRU  
CN Bis(4-chlorophenyl) sulfone-bisphenol A copolymer, SRU  
CN Bis(p-fluorophenyl) sulfone-bisphenol A polymer, SRU  
CN Bisphenol A disodium salt-4,4'-dichlorodiphenyl sulfone copolymer, SRU  
CN Bisphenol A polysulfone  
CN Bisphenol A-4,4'-dichlorodiphenyl sulfone copolymer, SRU  
CN Bisphenol A-4,4'-dichlorodiphenyl sulfone polymer, SRU  
CN Bisphenol A-4,4'-difluorodiphenyl sulfone copolymer, SRU  
CN Bisphenol A-4,4'-dihydroxydiphenyl sulfone copolymer, sru  
CN Bisphenol A-4,4'-dihydroxydiphenyl sulfone polymer, SRU  
CN Bisphenol A-4,4'-sulfonyldiphenol polymer, SRU  
CN Bisphenol A-bis(4-chlorophenyl) sulfone copolymer, SRU

CN Bisphenol A-bis(p-chlorophenyl) sulfone polymer, SRU  
 CN Bisphenol A-p,p'-dichlorodiphenyl sulfone copolymer, SRU  
 CN Bisphenol A-p-chlorophenyl sulfone copolymer, SRU  
 CN Bisphenol A-p-dichlorodiphenylsulfone copolymer, SRU  
 CN Desal E 100  
 CN Diaflo PM 30  
 CN Dian-4,4'-difluorodiphenyl sulfone copolymer, SRU  
 CN FS 1200  
 CN Gafone S 1500  
 CN Gafone S 1500P  
 CN Gatone 3200P  
 CN IRIS 3026  
 CN Kimfone  
 CN OASO 10D  
 CN P 1700  
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 CN Poly(oxy-p-phenyleneisopropylidene-p-phenyleneoxy-p-phenylenesulfonyl-p-phenylene)  
 CN Poly(sulfonyl-p-phenyleneoxy-p-phenyleneisopropylidene-p-phenyleneoxy-p-phenylene)  
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 CI PMS, COM  
 PCT Polyether, Polysulfone  
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 DT.CA CAplus document type: Conference; Dissertation; Journal; Patent; Report  
 RL.P Roles from patents: ANST (Analytical study); BIOL (Biological study); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)  
 RLD.P Roles for non-specific derivatives from patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)  
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 RLD.NP Roles for non-specific derivatives from non-patents: ANST (Analytical



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thesaurus added

NEWS 15 DEC 02 PCTGEN enhanced with patent family and legal status  
display data from INPADOCDB

NEWS 16 DEC 02 USGENE: Enhanced coverage of bibliographic and  
sequence information

NEWS 17 DEC 21 New Indicator Identifies Multiple Basic Patent  
Records Containing Equivalent Chemical Indexing  
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FILE 'HOME' ENTERED AT 08:35:49 ON 13 JAN 2010

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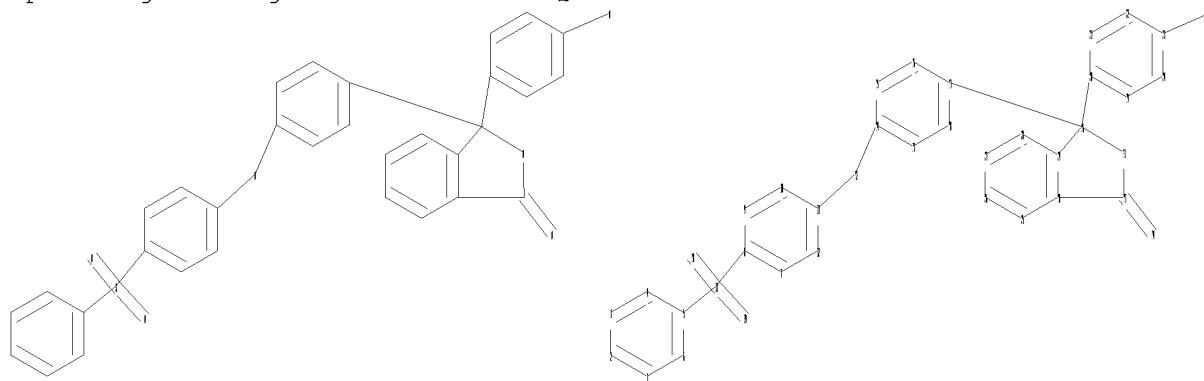
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chain nodes :

31 32 34 35 38 39

ring nodes :

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23  
24 25 26 27 28 29 30 33 36 37

chain bonds :

5-31 8-31 11-32 14-32 17-36 20-36 23-35 31-38 31-39 34-37

ring bonds :

1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12 13-14 13-18  
14-15 15-16 16-17 17-18 19-20 19-24 20-21 21-22 22-23 23-24 25-26 25-30  
26-27 27-28 28-29 29-30 29-36 30-37 33-36 33-37

exact/norm bonds :

5-31 8-31 11-32 14-32 23-35 29-36 30-37 31-38 31-39 33-36 33-37 34-37

exact bonds :

17-36 20-36

normalized bonds :

1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12 13-14 13-18  
14-15 15-16 16-17 17-18 19-20 19-24 20-21 21-22 22-23 23-24 25-26 25-30  
26-27 27-28 28-29 29-30

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom  
11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom  
20:Atom 21:Atom 22:Atom 23:Atom 24:Atom 25:Atom 26:Atom 27:Atom 28:Atom  
29:Atom 30:Atom 31:CLASS 32:CLASS 33:Atom 34:CLASS 35:CLASS 36:Atom 37:Atom  
38:CLASS 39:CLASS

L1 STRUCTURE UPLOADED

=> s l1

SAMPLE SEARCH INITIATED 08:36:34 FILE 'REGISTRY'  
SAMPLE SCREEN SEARCH COMPLETED - 10 TO ITERATE

100.0% PROCESSED 10 ITERATIONS 0 ANSWERS  
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*  
BATCH \*\*COMPLETE\*\*  
PROJECTED ITERATIONS: 11 TO 389  
PROJECTED ANSWERS: 0 TO 0

L2 0 SEA SSS SAM L1

=> s l1 all

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The query entered contains both search terms created by  
structure-building or screen commands and text search terms. L#s  
created via the STRUCTURE or SCREEN commands must be searched in the  
structures files separately from text terms or profiles. The L#  
answer sets from structure searches can be used in crossover searches  
and can be combined with text terms.

=> s l1 full

FULL SEARCH INITIATED 08:36:55 FILE 'REGISTRY'  
FULL SCREEN SEARCH COMPLETED - 170 TO ITERATE

100.0% PROCESSED 170 ITERATIONS 12 ANSWERS  
SEARCH TIME: 00.00.01

L3 12 SEA SSS FUL L1

=> file caplus

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	191.54	191.76

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FILE COVERS 1907 - 13 Jan 2010 VOL 152 ISS 3  
FILE LAST UPDATED: 11 Jan 2010 (20100111/ED)  
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Oct 2009  
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Oct 2009

Caplus now includes complete International Patent Classification (IPC) reclassification data for the third quarter of 2009.

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This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s 13

L4 187 L3

=> s 14 and membrane

873636 MEMBRANE

368337 MEMBRANES

973274 MEMBRANE

(MEMBRANE OR MEMBRANES)

L5 54 L4 AND MEMBRANE

=> s 15 and fuel cell

491707 FUEL

187993 FUELS

549417 FUEL

(FUEL OR FUELS)

2700763 CELL

2309832 CELLS

3507412 CELL

(CELL OR CELLS)

105727 FUEL CELL

(FUEL(W)CELL)

L6 7 L5 AND FUEL CELL

=> d 16 1-7 ti pn

L6 ANSWER 1 OF 7 CAPLUS COPYRIGHT 2010 ACS on STN

TI Characterization and performance of sulfonated phenolphthalein poly/montmorillonite proton conducting composite membranes

L6 ANSWER 2 OF 7 CAPLUS COPYRIGHT 2010 ACS on STN

TI Proton conducting composite membranes from sulfonated polyethersulfone Cardo and phosphotungstic acid for fuel cell application

L6 ANSWER 3 OF 7 CAPLUS COPYRIGHT 2010 ACS on STN

TI Quaternized polyethersulfone Cardo anion exchange membranes for direct methanol alkaline fuel cells

L6 ANSWER 4 OF 7 CAPLUS COPYRIGHT 2010 ACS on STN

TI Sulfonated polyethersulfone Cardo membranes for direct methanol fuel cell

L6 ANSWER 5 OF 7 CAPLUS COPYRIGHT 2010 ACS on STN

TI Comparison of properties of membranes for direct methanol fuel cells

L6 ANSWER 6 OF 7 CAPLUS COPYRIGHT 2010 ACS on STN

TI Membrane-electrode assembly for fuel cell

PATENT NO.	KIND	DATE
WO 2004055927	A2	20040701
WO 2004055927	A3	20060119
CA 2508835	A1	20040701
AU 2002356654	A1	20040709
AU 2002356654	B2	20090820
EP 1576683	A2	20050921
EP 1576683	B1	20060607
AT 329374	T	20060615
JP 2006520992	T	20060914
ES 2266642	T3	20070301
US 20060228607	A1	20061012

L6 ANSWER 7 OF 7 CAPLUS COPYRIGHT 2010 ACS on STN

TI New sulfonated polysulfone co-polymer membrane for low temperature fuel cells

=> d 16 7 all

L6 ANSWER 7 OF 7 CAPLUS COPYRIGHT 2010 ACS on STN

AN 2004:44651 CAPLUS

DN 140:377833

ED Entered STN: 19 Jan 2004

TI New sulfonated polysulfone co-polymer membrane for low temperature fuel cells

AU Tavares, A. C.; Pedicini, R.; Gatto, I.; Dubitsky, Yu. A.; Zaopo, A.; Passalacqua, E.

CS Pirelli Labs, Milan, 20126, Italy

SO Journal of New Materials for Electrochemical Systems (2003), 6(4), 211-215  
CODEN: JMESFQ; ISSN: 1480-2422

PB Journal of New Materials for Electrochemical Systems

DT Journal

LA English

CC 52-2 (Electrochemical, Radiational, and Thermal Energy Technology)  
Section cross-reference(s): 38, 76

AB Membranes based on a new sulfonated polysulfone co-polymer having a pending lactone cardo group in one of the structural units were characterized by ion-exchange capacity, water-up take, TGA and DSC. This sulfonated polysulfone co-polymer is characterized by a low glass transition temperature (138°). Single cell tests in H2/air fuel cells configuration at 30 and 60° showed for 120 µm membranes power densities of 140 and 210 mW-cm-2 resp. A stable time performance was measured up to 250 h.

ST sulfonated polysulfone co polymer membrane electrode fuel cell electrolyte

IT Membranes, nonbiological  
(elec. conductive, for fuel cell membrane electrodes; new sulfonated polysulfone co-polymer membrane for low temperature fuel cells)

IT Polyoxyalkylenes, uses

RL: DEV (Device component use); USES (Uses)

(fluorine- and sulfo-containing, ionomers, composite electrode with platinum; new sulfonated polysulfone co-polymer membrane for low temperature fuel cells)

IT Cation exchange  
 Conducting polymers  
 Fuel cell electrolytes  
 Fuel cells  
 Glass transition temperature  
 Membrane electrodes  
 (new sulfonated polysulfone co-polymer membrane for low temperature fuel cells)

IT Electric resistance  
 Open circuit potential  
 (of assembled fuel cell; new sulfonated polysulfone co-polymer membrane for low temperature fuel cells)

IT Absorption  
 (of water; new sulfonated polysulfone co-polymer membrane for low temperature fuel cells)

IT Electric current-potential relationship  
 (polarization curves of fuel cell; new sulfonated polysulfone co-polymer membrane for low temperature fuel cells)

IT Polyketones  
 RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PRP (Properties); PYP (Physical process); PROC (Process); USES (Uses)  
 (polyether-, sulfonated; new sulfonated polysulfone co-polymer membrane for low temperature fuel cells)

IT Polyoxyphenylenes  
 RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PRP (Properties); PYP (Physical process); PROC (Process); USES (Uses)  
 (polyketone-, cardo; new sulfonated polysulfone co-polymer membrane for low temperature fuel cells)

IT Polyethers, uses  
 RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PRP (Properties); PYP (Physical process); PROC (Process); USES (Uses)  
 (polyketone-, sulfonated; new sulfonated polysulfone co-polymer membrane for low temperature fuel cells)

IT Fluoropolymers, uses  
 RL: DEV (Device component use); USES (Uses)  
 (polyoxyalkylene-, sulfo-containing, ionomers, composite electrode with platinum; new sulfonated polysulfone co-polymer membrane for low temperature fuel cells)

IT Ionomers  
 RL: DEV (Device component use); USES (Uses)  
 (polyoxyalkylenes, fluorine- and sulfo-containing, composite electrode with platinum; new sulfonated polysulfone co-polymer membrane for low temperature fuel cells)

IT Polyketones  
 RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PRP (Properties); PYP (Physical process); PROC (Process); USES (Uses)  
 (polyoxyphenylene-, cardo; new sulfonated polysulfone co-polymer membrane for low temperature fuel cells)

IT Polysulfones, uses  
 RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PRP (Properties); PYP (Physical process); PROC (Process); USES (Uses)  
 (sulfonated; new sulfonated polysulfone co-polymer membrane

for low temperature fuel cells)

IT 7664-93-9, Sulfuric acid, reactions  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (Nafion preparation; new sulfonated polysulfone co-polymer membrane  
 for low temperature fuel cells)

IT 7732-18-5, Water, processes  
 RL: PEP (Physical, engineering or chemical process); PYP (Physical  
 process); PROC (Process)  
 (absorption; new sulfonated polysulfone co-polymer membrane  
 for low temperature fuel cells)

IT 7440-06-4, Platinum, uses  
 RL: DEV (Device component use); USES (Uses)  
 (composite electrode with Nafion; new sulfonated polysulfone co-polymer  
 membrane for low temperature fuel cells)

IT 1333-74-0, Hydrogen, uses  
 RL: CPS (Chemical process); PEP (Physical, engineering or chemical  
 process); TEM (Technical or engineered material use); PROC (Process); USES  
 (Uses)  
 (new sulfonated polysulfone co-polymer membrane for low temperature  
 fuel cells)

IT 40883-78-1D, sulfonated  
 RL: DEV (Device component use); PEP (Physical, engineering or chemical  
 process); PRP (Properties); PYP (Physical process); PROC (Process); USES  
 (Uses)  
 (new sulfonated polysulfone co-polymer membrane for low temperature  
 fuel cells)

IT 66796-30-3, Nafion 117  
 RL: DEV (Device component use); PRP (Properties); USES (Uses)  
 (new sulfonated polysulfone co-polymer membrane for low temperature  
 fuel cells)

OSC.G 4 THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD (4 CITINGS)

UPOS.G Date last citing reference entered STN: 18 Feb 2009

OS.G CAPLUS 2008:1490084; 2008:325290; 2007:1328804; 2007:654015

RE.CNT 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE CITED REFERENCES

- (1) Andrwes, M; WO 01/71839 2001 CAPLUS
- (2) Arnold, C; J Membrane Sci 1988, V38, P71 CAPLUS
- (3) Charnock, P; WO 00/15691 2000 CAPLUS
- (4) Gilbert, E; Sulfonation and Related Reactions 1965
- (5) Lufrano, F; J Appl Polym Sci 2000, V77, P1250 CAPLUS
- (6) Lufrano, F; Solid State Ionics 2001, V145, P47 CAPLUS
- (7) Mottet, C; Polym Bull 1982, V8, P511 CAPLUS
- (8) Nolte, R; J Membrane Sci 1993, V83, P211 CAPLUS
- (9) Noshay, A; J Appl Polym Sci 1976, V20, P1885 CAPLUS
- (10) Reidinger, H; J Membrane Sci 1988, V36, P5
- (11) Rusanov, A; Uspekhi Khimii, in Russian 2002, V71, P862
- (12) Wei, X; J Am Chem Soc 1996, V118, P2545 CAPLUS
- (13) Zschocke, P; J Membrane Sci 1985, V22, P325 CAPLUS

=> s 15 not 16

L7 47 L5 NOT L6

=> S L7 AND PY<=2004

25162179 PY<=2004

L8 27 L7 AND PY<=2004

=> d 18 1-27 ti pn

L8 ANSWER 1 OF 27 CAPLUS COPYRIGHT 2010 ACS on STN

TI Effect of additives on structure and performance of PSF/PES-C alloy  
 membranes



L8 ANSWER 2 OF 27 CAPLUS COPYRIGHT 2010 ACS on STN  
 TI Study on the integrated membrane process of dehumidification of compressed air and gas-phase dehydration of ethanol

L8 ANSWER 3 OF 27 CAPLUS COPYRIGHT 2010 ACS on STN  
 TI Sulfonation of polysulfones: suitability of the sulfonated materials for asymmetric membrane preparation

L8 ANSWER 4 OF 27 CAPLUS COPYRIGHT 2010 ACS on STN  
 TI Gas permeabilities of cardo polyoxyarylene membranes

L8 ANSWER 5 OF 27 CAPLUS COPYRIGHT 2010 ACS on STN  
 TI Gas and Water Vapor Transport through a Series of Novel Poly(aryl ether sulfone) Membranes

L8 ANSWER 6 OF 27 CAPLUS COPYRIGHT 2010 ACS on STN  
 TI Study on the formation process of asymmetric CO<sub>2</sub> separation membrane

L8 ANSWER 7 OF 27 CAPLUS COPYRIGHT 2010 ACS on STN  
 TI Novel hydrophilic membrane materials: sulfonated polyethersulfone Cardo

L8 ANSWER 8 OF 27 CAPLUS COPYRIGHT 2010 ACS on STN  
 TI Study on the separation of methanol-MTBE vapor mixtures with blended hollow fiber membranes of polyimide and sulfonated poly(ether-sulfone)

L8 ANSWER 9 OF 27 CAPLUS COPYRIGHT 2010 ACS on STN  
 TI Study on modified ultrafiltration membrane by FTIR reflectance spectroscopy

L8 ANSWER 10 OF 27 CAPLUS COPYRIGHT 2010 ACS on STN  
 TI Dehumidification properties of polyimide hollow fiber membrane and its application in gas phase dehydration of ethanol

L8 ANSWER 11 OF 27 CAPLUS COPYRIGHT 2010 ACS on STN  
 TI Preparation of gas dehydration membrane by using blends of sulfonated poly(ether-sulfone) and soluble polyimide

L8 ANSWER 12 OF 27 CAPLUS COPYRIGHT 2010 ACS on STN  
 TI Membrane characterization of phenoxy / PESC Blends

L8 ANSWER 13 OF 27 CAPLUS COPYRIGHT 2010 ACS on STN  
 TI Permeation of nitrogen and water vapor through sulfonated polyetherethersulfone membrane

L8 ANSWER 14 OF 27 CAPLUS COPYRIGHT 2010 ACS on STN  
 TI Synthesis and characterization of several new cardo aromatic polyether-polysulfones

L8 ANSWER 15 OF 27 CAPLUS COPYRIGHT 2010 ACS on STN  
 TI Gas permeation behavior of several new cardo polyarylethersulfone membranes

L8 ANSWER 16 OF 27 CAPLUS COPYRIGHT 2010 ACS on STN  
 TI Catalytic behaviors and gas permeation properties of palladium-containing phenolphthalein poly(ether sulfone)

L8 ANSWER 17 OF 27 CAPLUS COPYRIGHT 2010 ACS on STN  
 TI Gas transport properties of a series of new poly(aryl ether sulfones)

L8 ANSWER 18 OF 27 CAPLUS COPYRIGHT 2010 ACS on STN  
 TI Study on polymer blends flat sheet UF membranes

L8 ANSWER 19 OF 27 CAPLUS COPYRIGHT 2010 ACS on STN  
 TI Integrally skinned asymmetric poly(ether sulfone) membrane made by dry/wet phase inversion

L8 ANSWER 20 OF 27 CAPLUS COPYRIGHT 2010 ACS on STN  
 TI Preparation of sulfonated polyether-sulfone microporous ultrafiltration membranes

	PATENT NO.	KIND	DATE	
	-----	----	-----	
PI	CN 1071100	A	19930421	<--
	CN 1034991	C	19970528	

L8 ANSWER 21 OF 27 CAPLUS COPYRIGHT 2010 ACS on STN  
 TI Research on PES/PDC blend UF membranes

L8 ANSWER 22 OF 27 CAPLUS COPYRIGHT 2010 ACS on STN  
 TI A study of charged nanofiltration membranes

L8 ANSWER 23 OF 27 CAPLUS COPYRIGHT 2010 ACS on STN  
 TI Studies on charged nanofiltration membranes

L8 ANSWER 24 OF 27 CAPLUS COPYRIGHT 2010 ACS on STN  
 TI Research of the polyether-polysulfone and cardo polyether-polyketone and polyether-polysulfone ultrafiltration membranes

L8 ANSWER 25 OF 27 CAPLUS COPYRIGHT 2010 ACS on STN  
 TI Permeation and conditioning effects in phenolphthalein-based polysulfone

L8 ANSWER 26 OF 27 CAPLUS COPYRIGHT 2010 ACS on STN  
 TI Tests for thermal stability of ultrafiltration membranes

L8 ANSWER 27 OF 27 CAPLUS COPYRIGHT 2010 ACS on STN  
 TI Gas permeation behavior of phenolphthalein-based heat-resistant polymers PEK-C and PES-C

=> d 18 8 all

L8 ANSWER 8 OF 27 CAPLUS COPYRIGHT 2010 ACS on STN  
 AN 2000:166998 CAPLUS  
 DN 133:151520  
 ED Entered STN: 14 Mar 2000  
 TI Study on the separation of methanol-MTBE vapor mixtures with blended hollow fiber membranes of polyimide and sulfonated poly(ether-sulfone)

AU Shi, Baoli; Wu, Yonglie; Liu, Jingzhi; Kong, Qingyi; Peng, Xi  
 CS Changchun Inst. Applied Chem., Chinese Acad. Sciences, Changchun, 130022, Peop. Rep. China  
 SO Mo Kexue Yu Jishu (1999), 19(6), 48-51  
 CODEN: MKYJEF; ISSN: 0254-6140  
 PB Mo Kexue Yu Jishu Bianjibu  
 DT Journal  
 LA Chinese  
 CC 38-3 (Plastics Fabrication and Uses)  
 AB The separation properties of the vapor mixts. of methanol-MTBE (Me tert-Bu ether) using the hollow fiber membranes, which were made with soluble polyimide and sulfonated poly(ether-sulfone) in different blending proportions and the effects of different operating factors on the separating

properties have been studied. The operation of sweeping with nitrogen flow was used. The separation coeffs. of the modified polyimide hollow fiber membranes for methanol-MTBE mixts. are extremely high. The application prospects is great.

- ST polyimide hollow fiber membrane methanol methyl butyl ether  
sepn; sulfonated polyether polysulfone hollow fiber membrane
- IT Membranes, nonbiological  
(hollow-fiber; separation of methanol-Me tert-Bu ether vapor mixts. with  
blended hollow fiber membranes of polyimide and sulfonated  
poly(ether-sulfone))
- IT Polysulfones, uses  
Polysulfones, uses  
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or  
engineered material use); USES (Uses)  
(polyether-, aromatic, cardo, polyimide blend; separation of methanol-Me  
tert-Bu ether vapor mixts. with blended hollow fiber membranes  
of polyimide and sulfonated poly(ether-sulfone))
- IT Polyimides, uses  
Polyimides, uses  
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or  
engineered material use); USES (Uses)  
(polyether-, aromatic; separation of methanol-Me tert-Bu ether vapor mixts.  
with blended hollow fiber membranes of polyimide and  
sulfonated poly(ether-sulfone))
- IT Polysulfones, uses  
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or  
engineered material use); USES (Uses)  
(polyether-, cardo, aromatic, polyimide blend; separation of methanol-Me  
tert-Bu ether vapor mixts. with blended hollow fiber membranes  
of polyimide and sulfonated poly(ether-sulfone))
- IT Cardo polymers  
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or  
engineered material use); USES (Uses)  
(polyether-polysulfones, aromatic, polyimide blend; separation of  
methanol-Me  
tert-Bu ether vapor mixts. with blended hollow fiber membranes  
of polyimide and sulfonated poly(ether-sulfone))
- IT Polyethers, uses  
Polyethers, uses  
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or  
engineered material use); USES (Uses)  
(polyimide-, aromatic; separation of methanol-Me tert-Bu ether vapor mixts.  
with blended hollow fiber membranes of polyimide and  
sulfonated poly(ether-sulfone))
- IT Polymer blends  
RL: PRP (Properties); TEM (Technical or engineered material use); USES  
(Uses)  
(polyimide-sulfonated poly(ether-sulfone); separation of methanol-Me tert-Bu  
ether vapor mixts. with blended hollow fiber membranes of  
polyimide and sulfonated poly(ether-sulfone))
- IT Polyethers, uses  
Polyethers, uses  
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or  
engineered material use); USES (Uses)  
(polysulfone-, aromatic, cardo, polyimide blend; separation of methanol-Me  
tert-Bu ether vapor mixts. with blended hollow fiber membranes  
of polyimide and sulfonated poly(ether-sulfone))
- IT Polyethers, uses  
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or  
engineered material use); USES (Uses)  
(polysulfone-, cardo, aromatic, polyimide blend; separation of methanol-Me  
tert-Bu ether vapor mixts. with blended hollow fiber membranes

of polyimide and sulfonated poly(ether-sulfone))

IT Flow  
 (separation of methanol-Me tert-Bu ether vapor mixts. with blended hollow fiber membranes of polyimide and sulfonated poly(ether-sulfone))

IT 40883-78-1D, PES-C, sulfonated  
 RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
 (polyimide blend; separation of methanol-Me tert-Bu ether vapor mixts. with blended hollow fiber membranes of polyimide and sulfonated poly(ether-sulfone))

IT 67-56-1, Methanol, processes 1634-04-4, Methyl tert-butyl ether  
 RL: PEP (Physical, engineering or chemical process); PROC (Process)  
 (separation of methanol-Me tert-Bu ether vapor mixts. with blended hollow fiber membranes of polyimide and sulfonated poly(ether-sulfone))

IT 162458-95-9 162458-96-0  
 RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
 (sulfonated poly(ether-sulfone) blend; separation of methanol-Me tert-Bu ether vapor mixts. with blended hollow fiber membranes of polyimide and sulfonated poly(ether-sulfone))

OSC.G 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

UPOS.G Date last citing reference entered STN: 16 Feb 2009

OS.G CAPLUS 2006:519107

=> d 18 12 all

L8 ANSWER 12 OF 27 CAPLUS COPYRIGHT 2010 ACS on STN

AN 1997:582317 CAPLUS

DN 127:235296

OREF 127:45912h,45913a

ED Entered STN: 12 Sep 1997

TI Membrane characterization of phenoxy / PES-C Blends

AU Mi, Yongli; Lu, Wenjun; Zheng, Sixun

CS Department of Chemical Engineering, The Hong Kong University of Science and Technology, Kowloon, Hong Kong

SO Polymeric Materials Science and Engineering (1997), 77, 364  
 CODEN: PMSEDG; ISSN: 0743-0515

PB American Chemical Society

DT Journal

LA English

CC 38-3 (Plastics Fabrication and Uses)  
 Section cross-reference(s):37

AB Blends of a bisphenol A-glycerin copolymer with PES-C are characterized via gas permeation, glass transition, and FTIR.

ST phenoxy polysulfone polyether blend permeation; glass transition polyether polysulfone blend

IT Glass transition  
 Membranes, nonbiological  
 Permeation  
 (membrane characterization of phenoxy/PES-C blends)

IT Cardo polymers  
 Phenoxy resins  
 Polymer blends  
 RL: PRP (Properties)  
 (membrane characterization of phenoxy/PES-C blends)

IT Polysulfones, properties  
 Polysulfones, properties  
 RL: PRP (Properties)  
 (polyether-; membrane characterization of phenoxy/PES-C

blends)

IT Polyethers, properties  
Polyethers, properties  
RL: PRP (Properties)  
(polysulfone-; membrane characterization of phenoxy/PES-C blends)

IT 25068-38-6 40883-78-1,  
Poly(phthalidylidene-1,4-phenyleneoxy-1,4-phenylenesulfonyl-1,4-phenyleneoxy-1,4-phenylene)  
RL: PRP (Properties)  
(membrane characterization of phenoxy/PES-C blends)

IT 74-82-8, Methane, miscellaneous 124-38-9, Carbon dioxide, miscellaneous  
7727-37-9, Nitrogen, miscellaneous 7782-44-7, Oxygen, miscellaneous  
RL: MSC (Miscellaneous)  
(permeation of phenoxy/PES-C membrane blends)

```
=> file reg
COST IN U.S. DOLLARS          SINCE FILE          TOTAL
                                ENTRY      SESSION
FULL ESTIMATED COST          68.41      260.17

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)  SINCE FILE          TOTAL
                                                ENTRY      SESSION
CA SUBSCRIBER PRICE              -2.55      -2.55
```

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STRUCTURE FILE UPDATES: 11 JAN 2010 HIGHEST RN 1201890-95-0  
DICTIONARY FILE UPDATES: 11 JAN 2010 HIGHEST RN 1201890-95-0

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TSCA INFORMATION NOW CURRENT THROUGH June 26, 2009.

Please note that search-term pricing does apply when conducting SmartSELECT searches.

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<http://www.cas.org/support/stngen/stndoc/properties.html>

```
=> s NPO chemplast
    18 NPO
    1 NPOS
    19 NPO
        (NPO OR NPOS)
    0 CHEMPLAST
L9      0 NPO CHEMPLAST
        (NPO(W)CHEMPLAST)
```

```
=>
Connecting via Winsock to STN
```

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LOGINID:SSPTAZPB1745

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

\* \* \* \* \* Welcome to STN International \* \* \* \* \*

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NEWS	3	AUG 18	COMPENDEX indexing changed for the Corporate Source (CS) field
NEWS	4	AUG 24	ENCOMPLIT/ENCOMPLIT2 reloaded and enhanced
NEWS	5	AUG 24	CA/CAPLUS enhanced with legal status information for U.S. patents
NEWS	6	SEP 09	50 Millionth Unique Chemical Substance Recorded in CAS REGISTRY
NEWS	7	SEP 11	WPIDS, WPINDEX, and WPIX now include Japanese FTERM thesaurus
NEWS	8	OCT 21	Derwent World Patents Index Coverage of Indian and Taiwanese Content Expanded
NEWS	9	OCT 21	Derwent World Patents Index enhanced with human translated claims for Chinese Applications and Utility Models
NEWS	10	NOV 23	Addition of SCAN format to selected STN databases
NEWS	11	NOV 23	Annual Reload of IFI Databases
NEWS	12	DEC 01	FRFULL Content and Search Enhancements
NEWS	13	DEC 01	DGENE, USGENE, and PCTGEN: new percent identity feature for sorting BLAST answer sets
NEWS	14	DEC 02	Derwent World Patent Index: Japanese FI-TERM thesaurus added
NEWS	15	DEC 02	PCTGEN enhanced with patent family and legal status display data from INPADOCDB
NEWS	16	DEC 02	USGENE: Enhanced coverage of bibliographic and sequence information
NEWS	17	DEC 21	New Indicator Identifies Multiple Basic Patent Records Containing Equivalent Chemical Indexing in CA/CAPLUS
NEWS	18	JAN 12	Match STN Content and Features to Your Information Needs, Quickly and Conveniently

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AND CURRENT DISCOVER FILE IS DATED 06 APRIL 2009.

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FILE 'HOME' ENTERED AT 09:04:28 ON 13 JAN 2010

=> d his

(FILE 'HOME' ENTERED AT 09:04:28 ON 13 JAN 2010)

=> file reg

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.22	0.22

FILE 'REGISTRY' ENTERED AT 09:04:36 ON 13 JAN 2010

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DICTIONARY FILE UPDATES: 11 JAN 2010 HIGHEST RN 1201890-95-0

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TSCA INFORMATION NOW CURRENT THROUGH June 26, 2009.

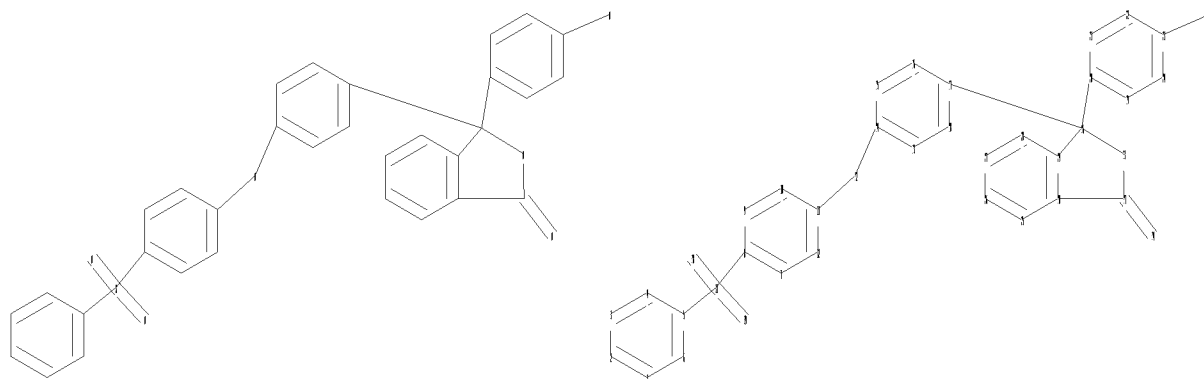
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conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and  
predicted properties as well as tags indicating availability of  
experimental property data in the original document. For information  
on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stndoc/properties.html>

=>

Uploading C:\Program Files\STNEXP\Queries\10538352.str



```

chain nodes :
31 32 34 35 38 39
ring nodes :
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
24 25 26 27 28 29 30 33 36 37
chain bonds :
5-31 8-31 11-32 14-32 17-36 20-36 23-35 31-38 31-39 34-37
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12 13-14 13-18
14-15 15-16 16-17 17-18 19-20 19-24 20-21 21-22 22-23 23-24 25-26 25-30
26-27 27-28 28-29 29-30 29-36 30-37 33-36 33-37
exact/norm bonds :
5-31 8-31 11-32 14-32 23-35 29-36 30-37 31-38 31-39 33-36 33-37 34-37
exact bonds :
17-36 20-36
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12 13-14 13-18
14-15 15-16 16-17 17-18 19-20 19-24 20-21 21-22 22-23 23-24 25-26 25-30
26-27 27-28 28-29 29-30

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Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom
20:Atom 21:Atom 22:Atom 23:Atom 24:Atom 25:Atom 26:Atom 27:Atom 28:Atom
29:Atom 30:Atom 31:CLASS 32:CLASS 33:Atom 34:CLASS 35:CLASS 36:Atom 37:Atom
38:CLASS 39:CLASS

```

L1 STRUCTURE UPLOADED

=> s l1 all

COMBINATION OF STRUCTURE AND TEXT TERMS NOT VALID

The query entered contains both search terms created by



structure-building or screen commands and text search terms. L#s created via the STRUCTURE or SCREEN commands must be searched in the structures files separately from text terms or profiles. The L# answer sets from structure searches can be used in crossover searches and can be combined with text terms.

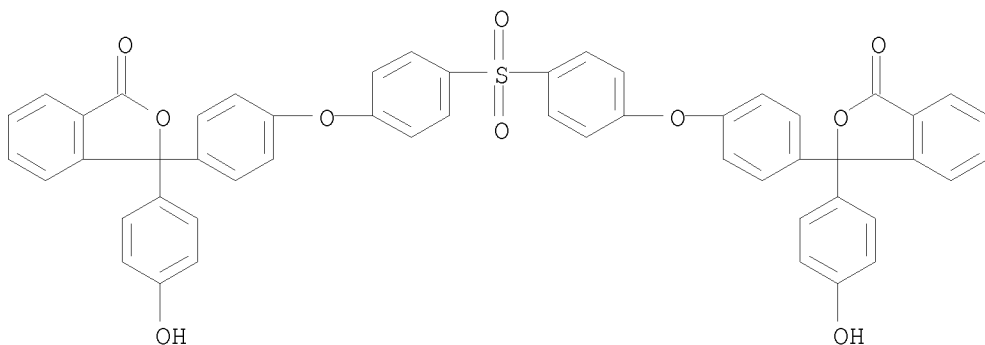
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=> s l1 ful
FULL SEARCH INITIATED 09:04:59 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -      170 TO ITERATE
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100.0% PROCESSED      170 ITERATIONS      12 ANSWERS
SEARCH TIME: 00.00.01
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```
L2      12 SEA SSS FUL L1
```

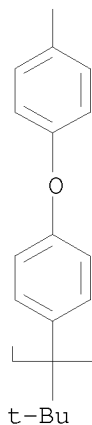
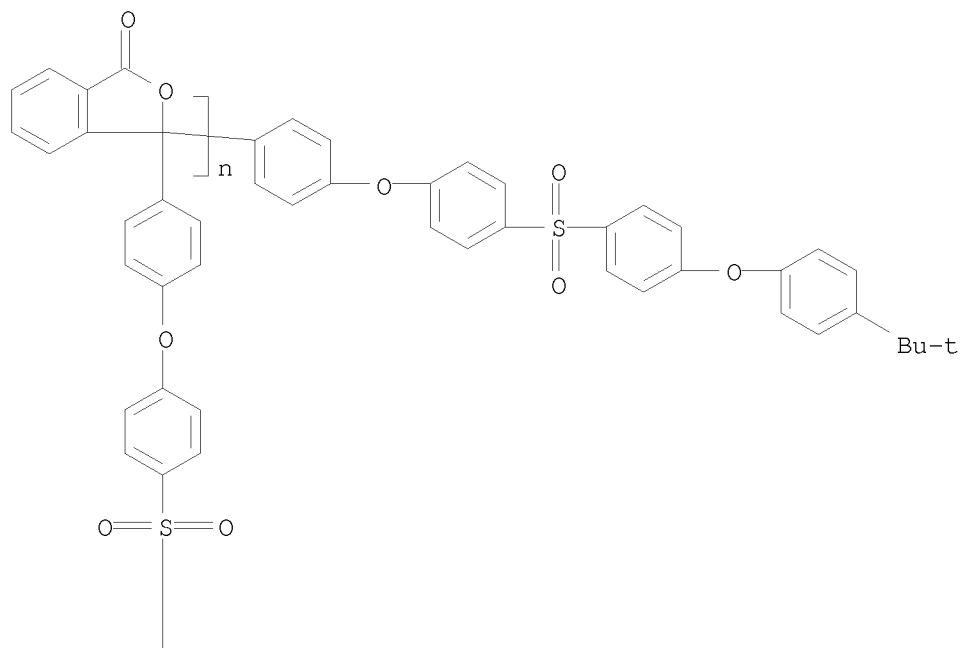
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=> d l2 1-12
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```
L2  ANSWER 1 OF 12  REGISTRY  COPYRIGHT 2010 ACS on STN
RN  742655-07-8  REGISTRY
ED  Entered STN:  10 Sep 2004
CN  1(3H)-Isobenzofuranone, 3,3'-[sulfonylbis(4,1-phenyleneoxy-4,1-
    phenylene)]bis[3-(4-hydroxyphenyl)- (9CI)  (CA INDEX NAME)
MF  C52 H34 O10 S
CI  COM
SR  CA
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**\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\***

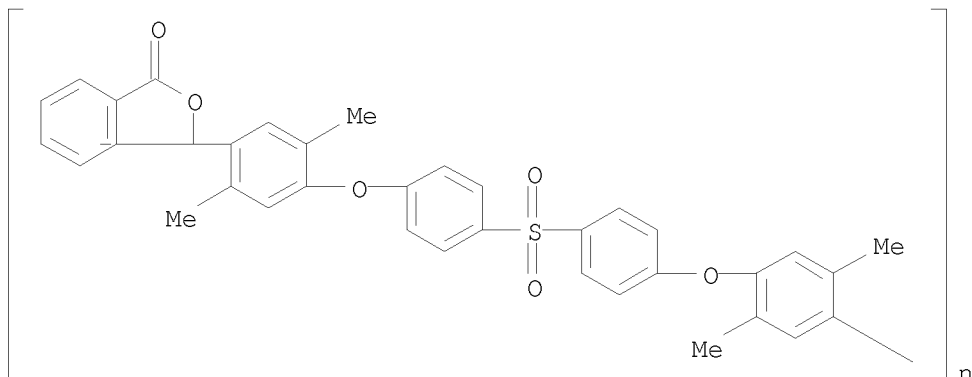
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L2  ANSWER 2 OF 12  REGISTRY  COPYRIGHT 2010 ACS on STN
RN  188585-62-8  REGISTRY
ED  Entered STN:  24 Apr 1997
CN  Poly[(3-oxo-1(3H)-isobenzofuranylidene)-1,4-phenyleneoxy-1,4-
    phenylenesulfonyl-1,4-phenyleneoxy-1,4-phenylene],
    α-[4-[4-[[4-[4-(1,1-
    dimethylethyl)phenoxy]phenyl]sulfonyl]phenoxy]phenyl]-ω-(1,1-
    dimethylethyl)- (9CI)  (CA INDEX NAME)
MF  (C32 H20 O6 S)n C32 H34 O4 S
CI  PMS
PCT Polyether, Polysulfone
SR  CA
LC  STN Files:  CA, CAPLUS
```



1 REFERENCES IN FILE CA (1907 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

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L2 ANSWER 3 OF 12 REGISTRY COPYRIGHT 2010 ACS on STN
RN 183867-10-9 REGISTRY
ED Entered STN: 11 Dec 1996
CN Poly[(3-oxo-1(3H)-isobenzofuranylidene)(2,5-dimethyl-1,4-phenylene)oxy-1,4-phenylenesulfonyl-1,4-phenyleneoxy(2,5-dimethyl-1,4-phenylene)] (9CI) (CA INDEX NAME)
MF (C36 H28 O6 S)n
CI PMS
PCT Polyether, Polysulfone
SR CA
LC STN Files: CA, CAPLUS
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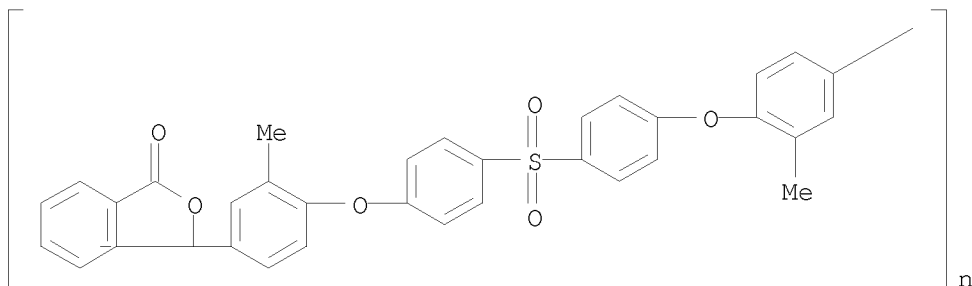
\*\*RELATED POLYMERS AVAILABLE WITH POLYLINK\*\*



5 REFERENCES IN FILE CA (1907 TO DATE)  
5 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2 ANSWER 4 OF 12 REGISTRY COPYRIGHT 2010 ACS on STN  
RN 183867-09-6 REGISTRY  
ED Entered STN: 11 Dec 1996  
CN Poly[(3-oxo-1(3H)-isobenzofuranylidene)(3-methyl-1,4-phenylene)oxy-1,4-phenylenesulfonyl-1,4-phenyleneoxy(2-methyl-1,4-phenylene)] (9CI) (CA INDEX NAME)  
MF (C34 H24 O6 S)n  
CI PMS  
PCT Polyether, Polysulfone  
SR CA  
LC STN Files: CA, CAPLUS

\*\*RELATED POLYMERS AVAILABLE WITH POLYLINK\*\*



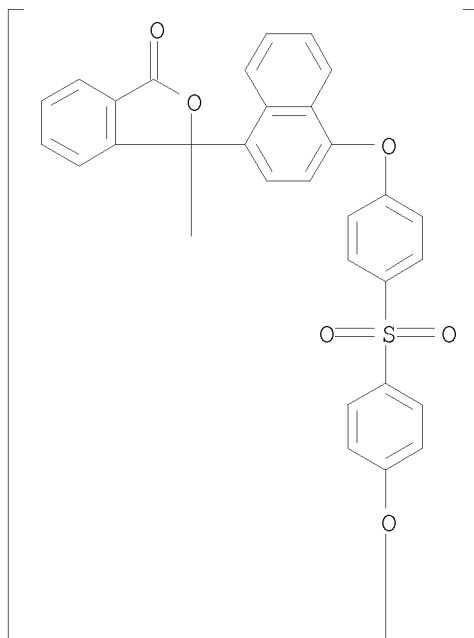
7 REFERENCES IN FILE CA (1907 TO DATE)  
7 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2 ANSWER 5 OF 12 REGISTRY COPYRIGHT 2010 ACS on STN  
RN 154442-40-7 REGISTRY  
ED Entered STN: 19 Apr 1994  
CN Poly[(3-oxo-1(3H)-isobenzofuranylidene)-1,4-naphthalenediyl-1,4-phenylenesulfonyl-1,4-phenyleneoxy-1,4-naphthalenediyl] (9CI) (CA INDEX NAME)  
MF (C40 H24 O6 S)n  
CI PMS  
PCT Polyether, Polysulfone  
SR CA

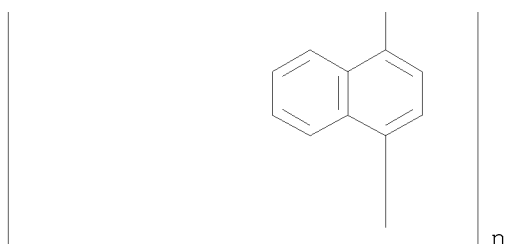
LC STN Files: CA, CAPLUS

\*\*RELATED POLYMERS AVAILABLE WITH POLYLINK\*\*

PAGE 1-A



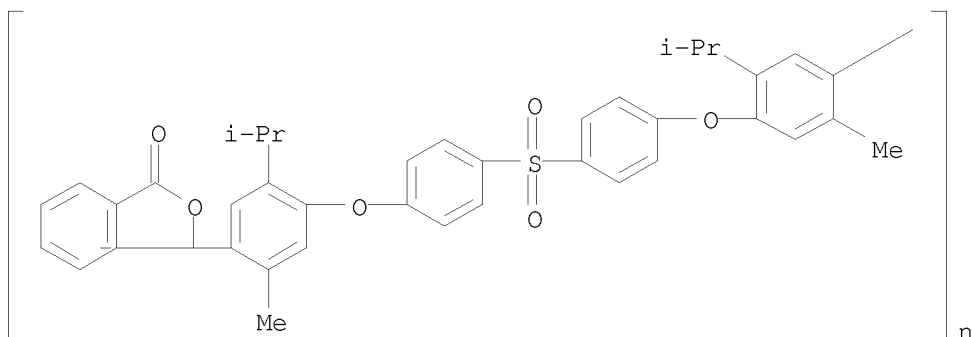
PAGE 2-A



1 REFERENCES IN FILE CA (1907 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2 ANSWER 6 OF 12 REGISTRY COPYRIGHT 2010 ACS on STN  
RN 154442-38-3 REGISTRY  
ED Entered STN: 19 Apr 1994  
CN Poly[(3-oxo-1(3H)-isobenzofuranylidene)[2-methyl-5-(1-methylethyl)-1,4-phenylene]oxy-1,4-phenylenesulfonyl-1,4-phenyleneoxy[5-methyl-2-(1-methylethyl)-1,4-phenylene]] (9CI) (CA INDEX NAME)  
MF (C40 H36 O6 S)n  
CI PMS  
PCT Polyether, Polysulfone  
SR CA  
LC STN Files: CA, CAPLUS

\*\*RELATED POLYMERS AVAILABLE WITH POLYLINK\*\*



6 REFERENCES IN FILE CA (1907 TO DATE)  
6 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2 ANSWER 7 OF 12 REGISTRY COPYRIGHT 2010 ACS on STN  
RN 91274-32-7 REGISTRY  
ED Entered STN: 16 Nov 1984  
CN Poly[(3-oxo-1(3H)-isobenzofuranylidene)-1,4-phenyleneoxycarbonyl-1,4-phenylene(dichloroethenylidene)-1,4-phenylenecarbonyloxy-1,4-phenylene(3-oxo-1(3H)-isobenzofuranylidene)-1,4-phenyleneoxy-1,4-phenylenesulfonyl-1,4-phenyleneoxy-1,4-phenylene] (9CI) (CA INDEX NAME)  
MF (C68 H40 Cl2 O12 S)n  
CI PMS  
PCT Polyester, Polyether, Polysulfone  
LC STN Files: CA, CAPLUS

\*\*RELATED POLYMERS AVAILABLE WITH POLYLINK\*\*

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

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\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*  
1 REFERENCES IN FILE CA (1907 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

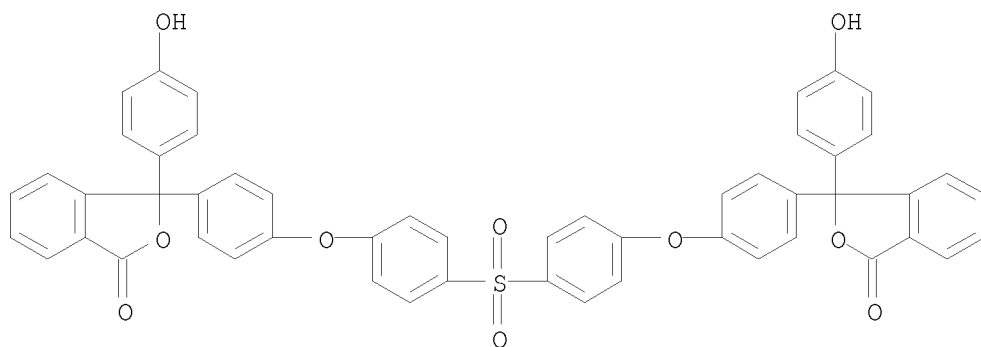
L2 ANSWER 8 OF 12 REGISTRY COPYRIGHT 2010 ACS on STN  
RN 91263-56-8 REGISTRY  
ED Entered STN: 16 Nov 1984  
CN 1,4-Benzenedicarbonyl dichloride, polymer with  
3,3'-[sulfonylbis(4,1-phenyleneoxy-4,1-phenylene)]bis[3-(4-hydroxyphenyl)-1(3H)-isobenzofuranone] disodium salt (9CI) (CA INDEX NAME)  
OTHER CA INDEX NAMES:

CN 1(3H)-Isobenzofuranone, 3,3'-[sulfonylbis(4,1-phenyleneoxy-4,1-phenylene)]bis[3-(4-hydroxyphenyl)-, disodium salt, polymer with 1,4-benzenedicarbonyl dichloride (9CI)  
 MF (C52 H34 O10 S . C8 H4 Cl2 O2 . 2 Na)x  
 CI PMS  
 PCT Polyester, Polyester formed, Polyether, Polysulfone  
 LC STN Files: CA, CAPLUS

\*\*RELATED POLYMERS AVAILABLE WITH POLYLINK\*\*

CM 1

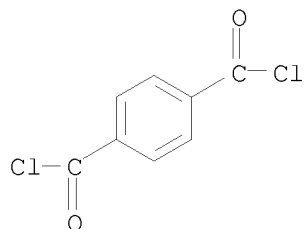
CRN 91260-39-8 (742655-07-8)  
 CMF C52 H34 O10 S . 2 Na



● 2 Na

CM 2

CRN 100-20-9  
 CMF C8 H4 Cl2 O2



1 REFERENCES IN FILE CA (1907 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

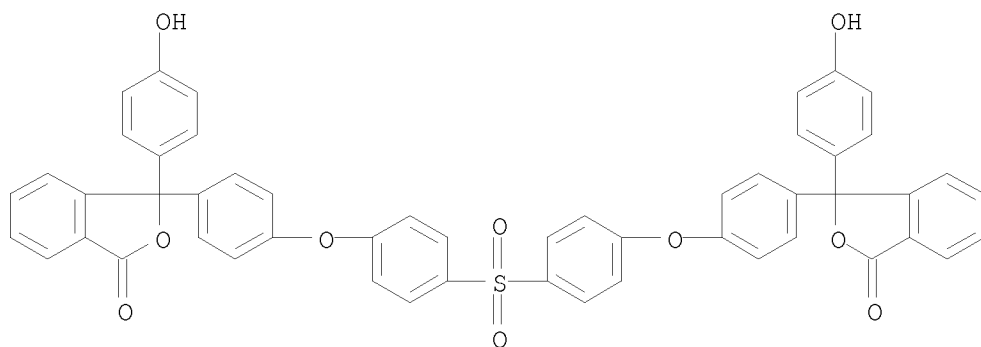
L2 ANSWER 9 OF 12 REGISTRY COPYRIGHT 2010 ACS on STN  
 RN 91263-55-7 REGISTRY  
 ED Entered STN: 16 Nov 1984  
 CN Benzoic acid, 4,4'-(dichloroethenylidene)bis-, polymer with 3,3'-[sulfonylbis(4,1-phenyleneoxy-4,1-phenylene)]bis[3-(4-hydroxyphenyl)-1(3H)-isobenzofuranone] disodium salt (9CI) (CA INDEX NAME)  
 OTHER CA INDEX NAMES:  
 CN 1(3H)-Isobenzofuranone, 3,3'-[sulfonylbis(4,1-phenyleneoxy-4,1-

phenylene)]bis[3-(4-hydroxyphenyl)-, disodium salt, polymer with  
 4,4'-(dichloroethenylidene)bis[benzoic acid] (9CI)  
 MF (C52 H34 O10 S . C16 H10 Cl2 O4 . 2 Na)x  
 CI PMS  
 PCT Polyester, Polyester formed, Polyether, Polystyrene, Polysulfone,  
 Polyvinyl  
 LC STN Files: CA, CAPLUS

\*\*RELATED POLYMERS AVAILABLE WITH POLYLINK\*\*

CM 1

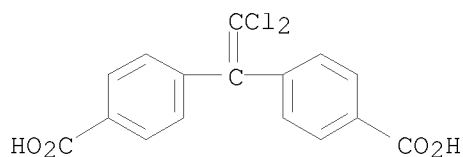
CRN 91260-39-8 (742655-07-8)  
 CMF C52 H34 O10 S . 2 Na



● 2 Na

CM 2

CRN 66955-59-7  
 CMF C16 H10 Cl2 O4



1 REFERENCES IN FILE CA (1907 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2 ANSWER 10 OF 12 REGISTRY COPYRIGHT 2010 ACS on STN  
 RN 91263-04-6 REGISTRY  
 ED Entered STN: 16 Nov 1984  
 CN Poly[(3-oxo-1(3H)-isobenzofuranylidene)-1,4-phenyleneoxycarbonyl-1,4-phenylenecarbonyloxy-1,4-phenylene(3-oxo-1(3H)-isobenzofuranylidene)-1,4-phenyleneoxy-1,4-phenylenesulfonyl-1,4-phenyleneoxy-1,4-phenylene] (9CI)  
 (CA INDEX NAME)  
 MF (C60 H36 O12 S)n  
 CI PMS  
 PCT Polyester, Polyether, Polysulfone

LC STN Files: CA, CAPLUS

\*\*RELATED POLYMERS AVAILABLE WITH POLYLINK\*\*

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2 ANSWER 11 OF 12 REGISTRY COPYRIGHT 2010 ACS on STN

RN 91260-39-8 REGISTRY

ED Entered STN: 16 Nov 1984

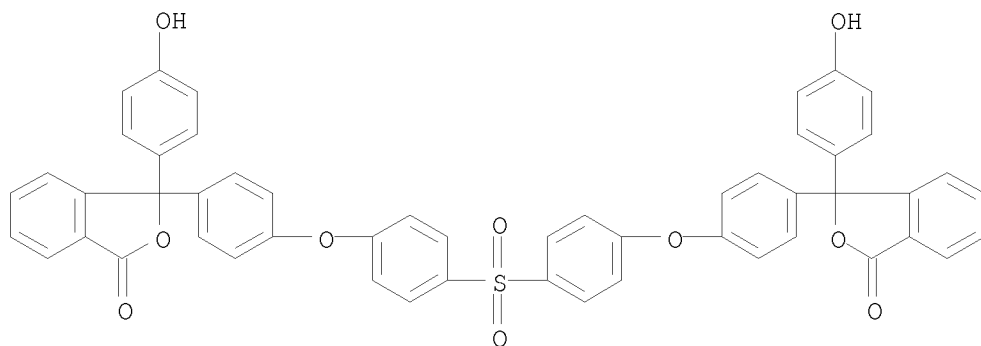
CN 1(3H)-Isobenzofuranone, 3,3'-[sulfonylbis(4,1-phenyleneoxy-4,1-phenylene)]bis[3-(4-hydroxyphenyl)-, disodium salt (9CI) (CA INDEX NAME)

MF C52 H34 O10 S . 2 Na

CI COM

LC STN Files: CA, CAPLUS

CRN (742655-07-8)



1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2 ANSWER 12 OF 12 REGISTRY COPYRIGHT 2010 ACS on STN

RN 40883-78-1 REGISTRY

ED Entered STN: 16 Nov 1984

CN Poly[(3-oxo-1(3H)-isobenzofuranylidene)-1,4-phenyleneoxy-1,4-phenylenesulfonyl-1,4-phenylene] (CA INDEX NAME)

OTHER NAMES:

CN 4,4'-Dichlorodiphenylsulfone-phenolphthalein copolymer, SRU

CN 4,4'-Difluorodiphenyl sulfone-phenolphthalein copolymer, SRU

CN Bis(4-fluorophenyl) sulfone-phenolphthalein sodium salt polymer, SRU

CN Bis(p-chlorophenyl) sulfone-phenolphthalein polymer, SRU

CN Bis(p-fluorophenyl) sulfone-phenolphthalein polymer, SRU

CN PES-C

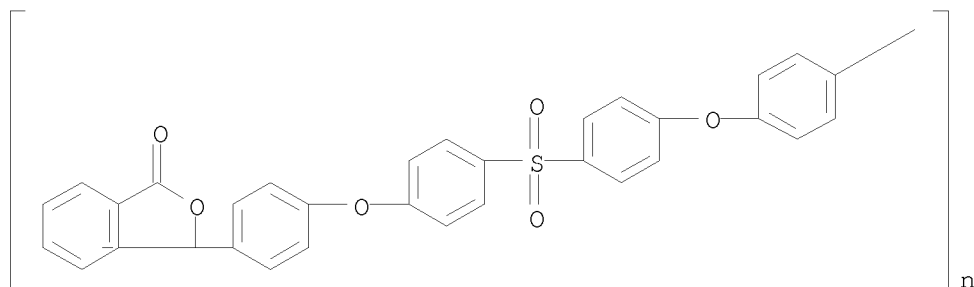
CN Phenolphthalein-4,4'-sulfonylbis(chlorobenzene) copolymer, SRU

CN Poly(phthalidylidene-1,4-phenyleneoxy-1,4-phenylenesulfonyl-1,4-phenyleneoxy-1,4-phenylene)



DR 152987-44-5, 91263-05-7, 685088-63-5  
MF (C32 H20 O6 S)n  
CI PMS  
PCT Polyether, Polysulfone  
LC STN Files: AGRICOLA, CA, CAPLUS, TOXCENTER, USPAT2, USPATFULL

\*\*RELATED POLYMERS AVAILABLE WITH POLYLINK\*\*



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

186 REFERENCES IN FILE CA (1907 TO DATE)  
30 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
186 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> file caplus

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

217.72

217.94

FILE 'CAPLUS' ENTERED AT 09:06:39 ON 13 JAN 2010

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FILE COVERS 1907 - 13 Jan 2010 VOL 152 ISS 3

FILE LAST UPDATED: 11 Jan 2010 (20100111/ED)

REVISED CLASS FIELDS (/NCL) LAST RELOADED: Oct 2009

USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Oct 2009

CAplus now includes complete International Patent Classification (IPC) reclassification data for the third quarter of 2009.

CAS Information Use Policies apply and are available at:

<http://www.cas.org/legal/infopolicy.html>

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s US 5198525/pn  
L3 0 US 5198525/PN  
(US5198525/PN)

=> s US 6232025/pn  
L4 1 US 6232025/PN  
(US6232025/PN)

=> d l4 all

L4 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2010 ACS on STN  
AN 2001:352222 CAPLUS  
DN 134:359490  
ED Entered STN: 17 May 2001  
TI Electrophotographic photoconductors comprising polyaryl ethers  
IN Srinivasan, Kasturi R.  
PA Lexmark International, Inc., USA  
SO U.S., 28 pp.  
CODEN: USXXAM  
DT Patent  
LA English  
IC ICM G03G005-047  
ICS G03G005-04  
INCL 430058400  
CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6232025	B1	20010515	US 2000-480026	20000110 <--
	WO 2001051995	A1	20010719	WO 2001-US612	20010109
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW			
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
	EP 1247142	A1	20021009	EP 2001-901892	20010109
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR			
	CN 1236363	C	20060111	CN 2001-804426	20010109
	US 20010023047	A1	20010920	US 2001-766997	20010123
	US 6350553	B2	20020226		
PRAI	US 2000-480026	A	20000110		
	WO 2001-US612	W	20010109		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 6232025	ICM	G03G005-047
	ICS	G03G005-04
	INCL	430058400
	IPCI	G03G0005-047 [ICM,7]; G03G0005-043 [ICM,7,C*]; G03G0005-04 [ICS,7]
	IPCR	G03G0005-05 [I,C*]; G03G0005-05 [I,A]; G03G0005-06

		[I,C*]; G03G0005-06 [I,A]; G03G0005-07 [I,C*]; G03G0005-07 [I,A]
	NCL	430/058.400; 430/058.350; 430/059.600; 430/096.000
	ECLA	G03G005/05C4D; G03G005/05C4H; G03G005/05C4F; G03G005/05C2D; G03G005/06B5D; G03G005/06B5; G03G005/07B; G03G005/07D; G03G005/07D2; G03G005/07S
WO 2001051995	IPCI	G03G0015-02 [ICM,7]; C08G0014-00 [ICS,7]; C08G0065-48 [ICS,7]; C08G0065-00 [ICS,7,C*]; C08L0071-12 [ICS,7]; C08L0071-00 [ICS,7,C*]
	IPCR	G03G0005-05 [I,C*]; G03G0005-05 [I,A]; G03G0005-06 [I,C*]; G03G0005-06 [I,A]; G03G0005-07 [I,C*]; G03G0005-07 [I,A]
	ECLA	G03G005/05C2D; G03G005/05C4F; G03G005/05C4H; G03G005/05C4D; G03G005/06B5; G03G005/06B5D; G03G005/07B; G03G005/07D; G03G005/07D2; G03G005/07S
EP 1247142	IPCI	G03G0015-02 [ICM,6]; C08G0014-00 [ICS,6]; C08G0065-48 [ICS,6]; C08G0065-00 [ICS,6,C*]; C08L0071-12 [ICS,6]; C08L0071-00 [ICS,6,C*]
	IPCR	G03G0005-05 [I,C*]; G03G0005-05 [I,A]; G03G0005-06 [I,C*]; G03G0005-06 [I,A]; G03G0005-07 [I,C*]; G03G0005-07 [I,A]
	ECLA	G03G005/05C2D; G03G005/05C4D; G03G005/05C4F; G03G005/05C4H; G03G005/06B5; G03G005/06B5D; G03G005/07B; G03G005/07D; G03G005/07D2; G03G005/07S
CN 1236363	IPCI	G03G0005-043 [I,C]; G03G0005-047 [I,A]
	IPCR	G03G0005-043 [I,C]; G03G0005-047 [I,A]; C08G0014-00 [I,C]; C08G0014-00 [I,A]; C08G0065-00 [I,C]; C08G0065-48 [I,A]; C08L0071-00 [I,C]; C08L0071-12 [I,A]; G03G0005-05 [I,C*]; G03G0005-05 [I,A]; G03G0005-06 [I,C*]; G03G0005-06 [I,A]; G03G0005-07 [I,C*]; G03G0005-07 [I,A]
	ECLA	G03G005/05C2D; G03G005/05C4D; G03G005/05C4F; G03G005/05C4H; G03G005/06B5; G03G005/06B5D; G03G005/07B; G03G005/07D; G03G005/07D2; G03G005/07S
US 20010023047	IPCI	G03G0005-047 [ICM,7]; G03G0005-043 [ICM,7,C*]
	IPCR	G03G0005-05 [I,C*]; G03G0005-05 [I,A]; G03G0005-06 [I,C*]; G03G0005-06 [I,A]; G03G0005-07 [I,C*]; G03G0005-07 [I,A]
	NCL	430/058.400; 430/058.100; 430/058.700; 430/096.000; 430/133.000; 430/135.000; 430/058.350; 430/059.600
	ECLA	G03G005/05C2D; G03G005/05C4F; G03G005/05C4H; G03G005/05C4D; G03G005/06B5; G03G005/06B5D; G03G005/07B; G03G005/07D; G03G005/07D2; G03G005/07S

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB A photoconductor comprises at least one layer on a substrate. The at least one layer is selected from the group consisting of charge transfer layers comprising a charge transfer mol., polycarbonate and a first polyaryl ether selected from the group consisting of polyaryletherketones, poly(aryl-perfluoroaryl ether)s, polyaryletherketone-hydrazones, polyaryletherketone-azines and mixts. and copolymers thereof; charge generating layers comprising a pigment, a polyvinylbutyral and a second polyaryl ether selected from the group consisting of polyaryletherketones, polyarylethersulfones and mixts. and copolymers thereof, and mixts. thereof. The invention improves the charging characteristics of the photoconductors while providing the long service-life.

ST electrophotog photoconductor comprising polyaryl ether

IT Electrophotographic photoconductors (photoreceptors)  
(electrophotog. photoconductors comprising polyaryl ethers)

IT Hydrazones  
Polyvinyl butyrals  
RL: TEM (Technical or engineered material use); USES (Uses)  
(electrophotog. photoconductors comprising polyaryl ethers)

IT Polyketones  
 RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (polyether-, aromatic; electrophotog. photoconductors comprising polyaryl ethers)

IT Polyketones  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (polyether-, cardo; electrophotog. photoconductors comprising polyaryl ethers)

IT Cardo polymers  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (polyether-polyketones; electrophotog. photoconductors comprising polyaryl ethers)

IT Polyethers, preparation  
 RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (polyketone-, aromatic; electrophotog. photoconductors comprising polyaryl ethers)

IT Polyethers, uses  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (polyketone-, cardo; electrophotog. photoconductors comprising polyaryl ethers)

IT 530-47-2DP, 1,1-Diphenylhydrazine hydrochloride, azine with polyether-polyketones 530-47-2DP, 1,1-Diphenylhydrazine hydrochloride, reaction product with poly ether with benzophenone repeating unit 13629-22-6DP, Fluorenone hydrazone, azine with polyether-polyketones 13629-22-6DP, Fluorenone hydrazone, reaction product with poly ether with benzophenone repeating unit 25897-65-8DP, Bisphenol A-4,4'-difluorobenzophenone copolymer, azine with 1,1-diphenylhydrazine hydrochloride 25897-65-8DP, Bisphenol A-4,4'-Difluorobenzophenone copolymer, hydrazone with fluorenone hydrazone 25897-65-8P, Bisphenol A-4,4'-Difluorobenzophenone copolymer 31694-10-7P 40690-49-1P 40690-50-4DP, azine with fluorenone hydrazone 40690-50-4P, Phenolphthalein-4,4'-Difluorobenzophenone copolymer 40793-56-4DP, azine with fluorenone hydrazone 40793-56-4P, Bisphenol fluorenone-4,4'-Difluorobenzophenone copolymer 40883-78-1P 40883-84-9DP, azine with fluorenone hydrazone 40883-84-9P 41205-96-3DP, Bisphenol A-4,4'-difluorobenzophenone copolymer, sru, azine with 1,1-diphenylhydrazine hydrochloride 41205-96-3DP, Bisphenol A-4,4'-Difluorobenzophenone copolymer, sru, hydrazone with fluorenone hydrazone 41205-96-3P, Bisphenol A-4,4'-Difluorobenzophenone copolymer, sru 41206-07-9DP, azine with fluorenone hydrazone 41206-07-9P, Bisphenol fluorenone-4,4'-Difluorobenzophenone copolymer, sru 92783-66-9DP, azine with 1,1-diphenylhydrazine hydrochloride 92783-66-9P, Bisphenol Z-4,4'-Difluorobenzophenone copolymer, sru 117344-37-3DP, azine with 1,1-diphenylhydrazine hydrochloride 117344-37-3P, Bisphenol Z-4,4'-Difluorobenzophenone copolymer 122159-35-7P, Bisphenol A-bisphenol fluorenone-4,4'-Difluorobenzophenone copolymer 128482-11-1P 141509-15-1P 145955-51-7P 185564-16-3DP, azine with 1,1-diphenylhydrazine hydrochloride 185564-16-3P 339279-77-5P 339279-78-6P 339279-79-7P 339279-80-0P 339279-81-1P  
 RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (electrophotog. photoconductors comprising polyaryl ethers)

OSC.G 4 THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD (4 CITINGS)

UPOS.G Date last citing reference entered STN: 30 Dec 2009

OS.G CAPLUS 2007:504905; 2005:1155383; 2005:1965; 2004:534488

RE.CNT 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE CITED REFERENCES

- (1) Adley; US 5130215 1992 CAPLUS
- (2) Allen; US 5322755 1994 CAPLUS
- (3) Anon; JP 63239454 1988 CAPLUS

(4) Anon; JP 63247757 1988 CAPLUS  
 (5) Anon; JP 6370256 1988  
 (6) Anon; EP 0501455 A1 1992 CAPLUS  
 (7) Balthis; US 5545499 1996  
 (8) Daoust; US 4657990 1987 CAPLUS  
 (9) Irvin; Journal of Polymer Science:Part A: Polymer Chemistry 1992, V30, P1675 CAPLUS  
 (10) Ishikawa; US 5073466 1991 CAPLUS  
 (11) Kan; US 4772526 1988 CAPLUS  
 (12) Kelsey; US 4882397 1989 CAPLUS  
 (13) Kierstein; US 6042980 2000 CAPLUS  
 (14) Mercer; Low Dielectric Constant Fluorinated Aryl Ethers Prepared From Decafluorobiphenyl, Corporate Research and Development  
 (15) Muller; US 5006443 1991  
 (16) Nakamura; US 5837410 1998 CAPLUS  
 (17) Nogami; US 5725982 1998 CAPLUS  
 (18) Roovers; US 5288834 1994 CAPLUS  
 (19) Rose; US 4419486 1983 CAPLUS  
 (20) Suzuki; US 5344733 1994 CAPLUS  
 (21) Towle; US 4990589 1991 CAPLUS

=> file reg

COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	10.11	228.05
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	-0.85	-0.85

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 DICTIONARY FILE UPDATES: 11 JAN 2010 HIGHEST RN 1201890-95-0

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=> s 25135-51-7

L5 1 25135-51-7  
 (25135-51-7/RN)

=> d 1

L5 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2010 ACS on STN  
 RN 25135-51-7 REGISTRY  
 ED Entered STN: 16 Nov 1984  
 CN Poly[oxy-1,4-phenylenesulfonyl-1,4-phenyleneoxy-1,4-phenylene(1-methylethylidene)-1,4-phenylene] (CA INDEX NAME)  
 OTHER CA INDEX NAMES:  
 CN Poly(oxy-p-phenylenesulfonyl-p-phenyleneoxy-p-phenyleneisopropylidene-p-phenylene) (8CI)  
 OTHER NAMES:  
 CN 4,4'-Bisfluorophenyl sulfone-bisphenol A copolymer, SRU  
 CN 4,4'-Dichlorodiphenyl sulfone-diphenylolpropane disodium salt copolymer, sru  
 CN 4,4'-Dichlorodiphenyl sulfone-diphenylolpropane polymer, SRU  
 CN 4,4'-Dichlorodiphenylsulfone-diphenylolpropane copolymer, sru  
 CN Amicon Diaflo PM 30  
 CN Amicon PM 30  
 CN Amoco P 3500  
 CN B 10  
 CN B 10 (polyethersulfone)  
 CN Bis(4-chlorophenyl) sulfone-2,2-bis(4-hydroxyphenyl)propane copolymer, SRU  
 CN Bis(4-chlorophenyl) sulfone-bisphenol A copolymer, SRU  
 CN Bis(p-fluorophenyl) sulfone-bisphenol A polymer, SRU  
 CN Bisphenol A disodium salt-4,4'-dichlorodiphenyl sulfone copolymer, SRU  
 CN Bisphenol A polysulfone  
 CN Bisphenol A-4,4'-dichlorodiphenyl sulfone copolymer, SRU  
 CN Bisphenol A-4,4'-dichlorodiphenyl sulfone polymer, SRU  
 CN Bisphenol A-4,4'-difluorodiphenyl sulfone copolymer, SRU  
 CN Bisphenol A-4,4'-dihydroxydiphenyl sulfone copolymer, sru  
 CN Bisphenol A-4,4'-dihydroxydiphenyl sulfone polymer, SRU  
 CN Bisphenol A-4,4'-sulfonyldiphenol polymer, SRU  
 CN Bisphenol A-bis(4-chlorophenyl) sulfone copolymer, SRU  
 CN Bisphenol A-bis(p-chlorophenyl) sulfone polymer, SRU  
 CN Bisphenol A-p,p'-dichlorodiphenyl sulfone copolymer, SRU  
 CN Bisphenol A-p-chlorophenyl sulfone copolymer, SRU  
 CN Bisphenol A-p-dichlorodiphenylsulfone copolymer, SRU  
 CN Desal E 100  
 CN Diaflo PM 30  
 CN Dian-4,4'-difluorodiphenyl sulfone copolymer, SRU  
 CN FS 1200  
 CN Gafone S 1500  
 CN Gafone S 1500P  
 CN Gatone 3200P  
 CN IRIS 3026  
 CN Kimfone  
 CN OASO 10D  
 CN P 1700  
 CN P 1700BK937  
 CN P 1700NT  
 CN P 1700NT11  
 CN P 1720  
 CN P 1800  
 CN P 1800NT  
 CN P 3500  
 CN P 3703  
 CN PEESF  
 CN PM 30  
 CN Poly(oxy-1,4-phenylenesulfonyl-1,4-phenyleneoxy-1,4-phenyleneisopropylidene-1,4-phenylene)  
 CN Poly(oxy-p-phenyleneisopropylidene-p-phenyleneoxy-p-phenylenesulfonyl-p-phenylene)  
 CN Poly(sulfonyl-p-phenyleneoxy-p-phenyleneisopropylidene-p-phenyleneoxy-p-phenylene)

ADDITIONAL NAMES NOT AVAILABLE IN THIS FORMAT - Use FCN, FIDE, or ALL for  
DISPLAY

DR 850081-57-1, 953795-39-6, 1054451-59-0, 916042-54-1, 949586-40-7,  
949586-44-1, 496947-79-6, 9084-64-4, 171040-41-8, 126430-90-8, 58516-07-7,  
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119441-80-4, 119441-81-5, 119468-26-7, 115232-25-2, 136922-61-7,  
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84930-44-9, 87714-78-1, 87806-52-8, 92480-75-6, 26699-43-4, 26894-27-9,  
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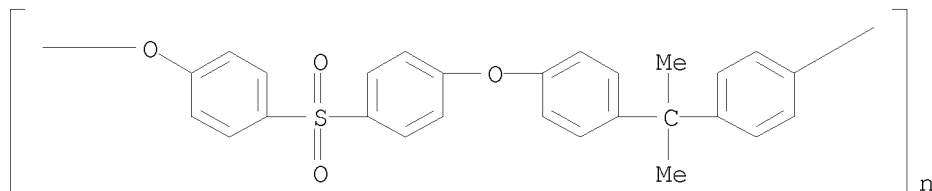
MF (C27 H22 O4 S)n

CI PMS, COM

PCT Polyether, Polysulfone

LC STN Files: AGRICOLA, BIOSIS, BIOTECHNO, CA, CAPLUS, CASREACT, CHEMCATS,  
CHEMLIST, CIN, CSCHEM, DDFU, DRUGU, EMBASE, IFICDB, IFIPAT, IFIUDB, IPA,  
MEDLINE, MSDS-OHS, PIRA, PROMT, SPECINFO, TOXCENTER, USPAT2, USPATFULL,  
USPATOLD

\*\*RELATED POLYMERS AVAILABLE WITH POLYLINK\*\*



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

4097 REFERENCES IN FILE CA (1907 TO DATE)  
611 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
4097 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> s 40883-78-1

L6 1 40883-78-1  
(40883-78-1/RN)

=> d 1

L6 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2010 ACS on STN

RN 40883-78-1 REGISTRY

ED Entered STN: 16 Nov 1984

CN Poly[(3-oxo-1(3H)-isobenzofuranylidene)-1,4-phenyleneoxy-1,4-  
phenylenesulfonyl-1,4-phenyleneoxy-1,4-phenylene] (CA INDEX NAME)

OTHER NAMES:

CN 4,4'-Dichlorodiphenylsulfone-phenolphthalein copolymer, SRU

CN 4,4'-Difluorodiphenyl sulfone-phenolphthalein copolymer, SRU

CN Bis(4-fluorophenyl) sulfone-phenolphthalein sodium salt polymer, SRU

CN Bis(p-chlorophenyl) sulfone-phenolphthalein polymer, SRU

CN Bis(p-fluorophenyl) sulfone-phenolphthalein polymer, SRU

CN PES-C

CN Phenolphthalein-4,4'-sulfonylbis(chlorobenzene) copolymer, SRU

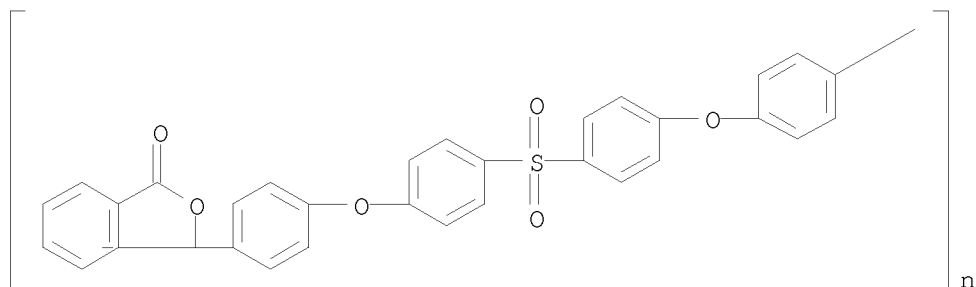
CN Poly(phthalidylidene-1,4-phenyleneoxy-1,4-phenylenesulfonyl-1,4-  
phenyleneoxy-1,4-phenylene)

DR 152987-44-5, 91263-05-7, 685088-63-5

MF (C32 H20 O6 S)n

CI PMS  
PCT Polyether, Polysulfone  
LC STN Files: AGRICOLA, CA, CAPLUS, TOXCENTER, USPAT2, USPATFULL

\*\*RELATED POLYMERS AVAILABLE WITH POLYLINK\*\*



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

186 REFERENCES IN FILE CA (1907 TO DATE)  
30 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
186 REFERENCES IN FILE CAPLUS (1907 TO DATE)

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